

REMARKS

In the non-final Office Action mailed May 01, 2007, claims 1-16 remain pending in this application. Claims 1-8, 13, 14 and 16 stand rejected. Claims 9-12 and 15 have been objected to. With this Amendment, claims 1, 3-7, 9, 13 and 15 have been amended. No new matter has been added. Reconsideration of the present application in view of the amendments and remarks that follow is respectfully submitted.

Claim Objections & Remarks

Claims 9-12 and 15 have been objected to as being dependent upon a rejected base claim where Examiner has noted that such claims would be allowable if said claims were rewritten in independent form inclusive of all limitations of the base claim and any intervening claims. Currently amended claims 9 and 15 have been rewritten such that each claim is now in independent form and each is inclusive of all limitations of their respective base claims and intervening claims. Claims 10-12 have not been rewritten as claims 12-14 depend variously from currently amended independent claim 9.

Accordingly, Applicant respectfully asserts the objections of claims 9-12 and 15 are traversed and requests withdrawal thereof. As Examiner has expressly stated that the subject matter of this section is allowable conditioned on Applicant's amending of the claims as indicated above, Applicant additionally posits that claims 9-12 and 15, as currently amended, stand ready for allowance.

Drawing Objections & Remarks

Figure 4 has been objected to by Examiner due to a ‘reference number “38” being used to designate both an “OR” block and an “adjust circuit”’ in the referenced figure. Applicant has corrected Examiner’s cited objection and has included as a part of this Amendment a Replacement Sheet for Figure 4 where Applicant has maintained the use of reference number 38 for the “OR” block and has corrected the reference number for the “adjust circuit” to be “8,” which is correctly referenced in the Specification.

Accordingly, Applicant respectfully asserts the drawing objections are traversed and requests withdrawal thereof.

35 U.S.C. §112 REJECTIONS & REMARKS

Examiner has rejected claims 3-6 under 35 U.S.C. §112 for the following reasons:

“Claims 3-6 are rejected [...] as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.”

Claim 3 recites the limitation “overhang of the first rotate up and rotate down signals”. There is no definition of the limitation “overhang” in the disclosure.”

Applicant notes that Examiner’s rejections are based on a common typo in the application which resulted resulting from an oversight due to auto-correction word processing software. Applicant has corrected the typo by replacing the term “overhang” with “overflow” for each of the affected claims, 3-5. Claim 6 does not include the typo “overhang” but is believed by Applicant to have been rejected by Examiner as claim 6 depends from claim5, which contained the typo. Applicant further notes that basis for the corrected term “overhang” may be found in Specification at Page 4 (lines 12-21), Page 5 (lines 3-7) and Figures 1, 2 and 3.

As Applicant has corrected the typo at each instance and cited basis for the corrected term, Applicant respectfully asserts the rejection of claims 3-6 are traversed and requests withdrawal thereof.

35 U.S.C. §102(b) REJECTIONS & REMARKS

Examiner has rejected claims 7 and 8 under 35 U.S.C. §102(b). Examiner has also included in the Office Action additional paragraph rejections to claims 13, 14 and 16 (*see Office Action Pages 4-5, paragraphs 5(2) – 5(5)*) in addition to the express rejection statement at Page 3 (*Paragraph 5*). Applicant, absent any further clarification, therefore assumes claims 7-8 and 13, 14 and 16 are all rejected under 35 U.S.C. §102(b).

Regarding Claims 7 and 8

Examiner has rejected claims 7-8 as being anticipated by USP 6,269,128 B1 (“Usui”). This rejection is respectfully traversed for the reasons following:

Applicant notes that “[A]n invention is anticipated if the same device, including all the claim limitations, is shown in a single prior art reference. Every element of the claimed invention must be literally present, arranged as in the claim.” Richardson v. Suzuki Motor Co. Ltd., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Additionally, Applicant notes that the claims must not be treated as “mere catalogs of separate parts, in disregard of the part-to-part relationships set forth in the claims and that give the claims their meaning.” Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Company et al., 730 F.2d 1452, 1459, 221 USPQ 481, 486 (Fed. Cir. 1984). Further, “[I]nherent anticipation requires that the missing descriptive material is ‘necessarily present,’ not merely probably or possibly present, in the prior art.” In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).” Moreso, “The identical invention must be shown in as complete detail as is contained in the . . . claim.” MPEP §2131 (quoting Richardson v. Suzuki Motor Co., 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (*emphasis added*)). As a result, a reference that fails to recite all of the features claimed expressly and fails to provide the requisite details, even where it may coincidentally lists features of a claim without describing the claimed arrangement, relationship, and organization of such features, cannot anticipate.

Applicant has reviewed Examiner’s rejections and respectfully asserts that Usui lacks all of the claimed elements. Usui neither discloses nor teaches indicating a trend in the phase adjustment nor counting signals for phase adjustments by a clock-data-recovery loop of a serial receiver, as does the present invention.

Examiner has stated:

“Usui discloses circuit (figure 2) comprising: a up/down counter (up/down counter 211 in figure 2) for counting signals for phase adjustments by a clock-data-recovery loop of a serial receiver (the up/down counter 211 increments or decrements a counter with each reference clock depending on the up/down signal UD and the up/down enable signal UDEN from lead/lag detector 210 in figure 2, column 5, lines 9-11); and an adder (adder 213 in figure 2) coupled to the up/down counter (adder 213 is coupled to the up/down counter 211) that outputs accumulated data indicative of a trend in the phase adjustments (the respective output counters of the up/down counter 211 are [t]he self running counter 212 are added by the full adder 213 to produce the symbol clock CLK, column 5, lines 44-46, as the up/down counter is accumulating the up and down signal, the output of the adder 213 is inherent an indicative [indicator] of the trend in the phase adjustment).

In Usui, “[T]he up/down counter 211 increments or decrements a counter with each reference clock depending on the up/down signal UD **and** the up/down enable signal UDEN.” (Column 5, lines 9-11, emphasis added). The present invention does not increment or decrement a counter in direct relation to the up/down signal **and** the up/down enable signal, as the present invention does not require the up/down enable signal element.

In Usui, “the respective counters are added by the full adder 213 to form a symbol clock CLK.” (Column 4, lines 51-52). Examiner has suggested that “adder 213 is coupled to the up/down counter 211,” (Office Action, Page 3, paragraph 5) but has not disclosed that Usui is instructive specifically that the adder 213 is for adding “the respective output counters of the up/down counter 211 **and** the self-running up counter 212...to produce the symbol CLK.” (Column 5, lines 44-46, emphasis added). In the present invention, “bits of the input signal are added by an accumulator” and “[T]he underflow and overflow states of the accumulator 12 are input to combinatorial logic 14, along with the Rot_dn and Rot_up signals. From the combinatorial logic 14, new rotate down (Rot_dn') and rotate up (Rot_up') are generated...” (see Specification at Page 4, lines 16, 18-20). The present invention does not use the adder to add the up/down counter and the self-running up counter of Usui, nor does the present invention produce symbol CLKs. Further, suggesting that the present invention does so, in either situation, would render the present invention inoperable as disclosed.

Further, Examiner has asserted that “...the output of the adder 213 is inherent an indicative [indicator] of the trend in the phase adjustment.” (Office Action, Page 4 paragraph 5). Applicant asserts that the creation of new signals, (Rot_dn') and (Rot_up'), in additional view of the arguments above, are functions of the underflow and overflow states of the accumulator as determined by the combinatorial logic in concert with the received (Rot_dn) and (Rot_up) signals from the phase rotator control (see generally Specification at Page 4, lines 12-21). Since, new signals, (Rot_dn') and (Rot_up'), are therefore neither functionally nor characteristically identical to those of the Usui CLK as output at 213 which also is a direct result of self-running up counter input and signals from a lead/lag detector 210, as suggested by Examiner, there is no inherency (comparative or otherwise), no extrinsic evidence, and no teaching.

"In relying upon the theory of inherency, the examiner must provide basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art," citing Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). M.P.E.P. § 2112.

For clarity, however, Applicant has amended claim 7 to indicate that the signals are from a phase rotator control (where basis is found in Specification at Page 4, line 13, and Figure 3). Accordingly, Applicant respectfully asserts the rejection of claim 7 is traversed and requests withdrawal thereof.

Since claim 8 depends directly from claim 7, and for reasons incorporating the remarks above, Applicant respectfully asserts the rejection of claim 8 is traversed and requests withdrawal thereof.

Applicant further respectfully asserts that claims 7 and 8, as currently amended, stand ready for allowance.

Regarding Claims 13, 14 and 16

Examiner has rejected claims 13, 14 and 16 as being anticipated by USP 6,269,128 B1 ("Usui"). This rejection is respectfully traversed for the reasons above, incorporated herein by reference, and as follows:

For clarity, Applicant has amended claim 13 to indicate that the reference clock is from a phase rotator control. Accordingly, Applicant respectfully asserts the rejection of claim 13 is traversed and requests withdrawal thereof.

Since claims 14 and 16 depend directly from claim 13, and for reasons incorporating the remarks above, Applicant respectfully asserts the rejection of claims 14 and 16 are traversed and requests withdrawal thereof.

Applicant further respectfully asserts that claims 13, 14 and 16, as currently amended, stand ready for allowance.

35 U.S.C. §102(e) REJECTIONS & REMARKS

Claims 1-3 are rejected under 35 U.S.C. §102(e) as being anticipated by USP 7,075,948 (“Markov”). This rejection is respectfully traversed for the reasons following:

Applicant has amended claim 1 such that the adjust circuit is for detecting trends in the signals, using combinatorial logic to adapt the signals based on accumulated data, and generating second signals improving a rate of compensation for the frequency offsets by the phase adjusts. Applicant respectfully asserts that Markov neither teaches nor discloses claim1 as is currently amended.

Accordingly, Applicant respectfully asserts the rejection of claim 1 is traversed and requests withdrawal thereof.

Applicant has previously amended claims 3 and 4 to properly correct a typo. Applicant has also amended claim 6 for clarity, such that the antecedent basis for the logic is via the combinatorial logic of currently amended claim 1.

Since claims 2-4 depend variously from claim 1, and for reasons incorporating the remarks above, Applicant respectfully asserts the rejection of claims 2-4 are traversed and requests withdrawal thereof.

Applicant further respectfully asserts that claims 1-4 and 6, as presented, in the Amendment, stand ready for allowance.

35 U.S.C. §103(a) REJECTIONS & REMARKS

Though the Examiner has not presented a rejection based on 35 U.S.C. §103(a), in anticipation of one from Examiner, Applicant respectfully asserts the a rejection of any of the claims as presented in the Amendment under 35 U.S.C. §103(a) would be without merit as: (1) the cited references do not disclose or teach the present invention; (2) if the present invention were adapted to the teachings of the cited art, the present invention would not operate as claimed; (3) there is no prime facie basis for a rejection of

obviousness (see note 1 below)¹; and (4) MPEP §2141 is inapplicable (see note 2 below).²

FINAL REMARKS

For the reasons stated hereinabove, Applicants respectfully assert that all claims, as presented in the Amendment, stand ready for allowance and request a Notice of Allowance be timely provided.

Applicant's attorney believes that this application is in condition for allowance. Should any unresolved issues remain, the Examiner is invited contact the undersigned at the telephone number indicated below.

Respectfully submitted,

August 1, 2007
Date

Customer Number 47052

/JOSEPH A. SAWYER, JR./
Joseph A. Sawyer, Jr.
Attorney for Applicants
Reg. No. 30,801
Ph. (650) 475-1435
Fax. (650) 493-4549

¹ According to the Supreme Court ruling in Graham v. John Deere, 383 U.S. 1 (1960), in making a case for obviousness, the Examiner must: (1) determine the scope and content of the prior art; (2) ascertain the differences between the prior art and the claims at issue; (3) resolve the level of ordinary skill in the pertinent art; and (4) evaluate evidence of secondary considerations. These principles have just been reconfirmed in KSR Int'l Co. v. Teleflex Inc., No. 04-1350 (Slip Op. April 30, 2007). In KSR Int'l Co., the U.S. Supreme Court restated the requirements for a finding of obviousness. Encouraging the application of common knowledge and common sense, the Court took care to guard against hindsight bias and ex post reasoning and to distinguish the predictable from the unpredictable arts ("If a person of ordinary skill can implement a predictable variation, §103 likely bars its patentability." [Emphasis added.]).

² When applying 35 U.S.C. § 103, the following tenets of patent law must be followed: (1) the claimed invention must be considered as a whole; (2) the references must be considered as a whole; (3) the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (4) reasonable expectation of success is the standard with which obviousness is determined (MPEP §2141).

AMENDED SHEET – FIG. 4

4/4

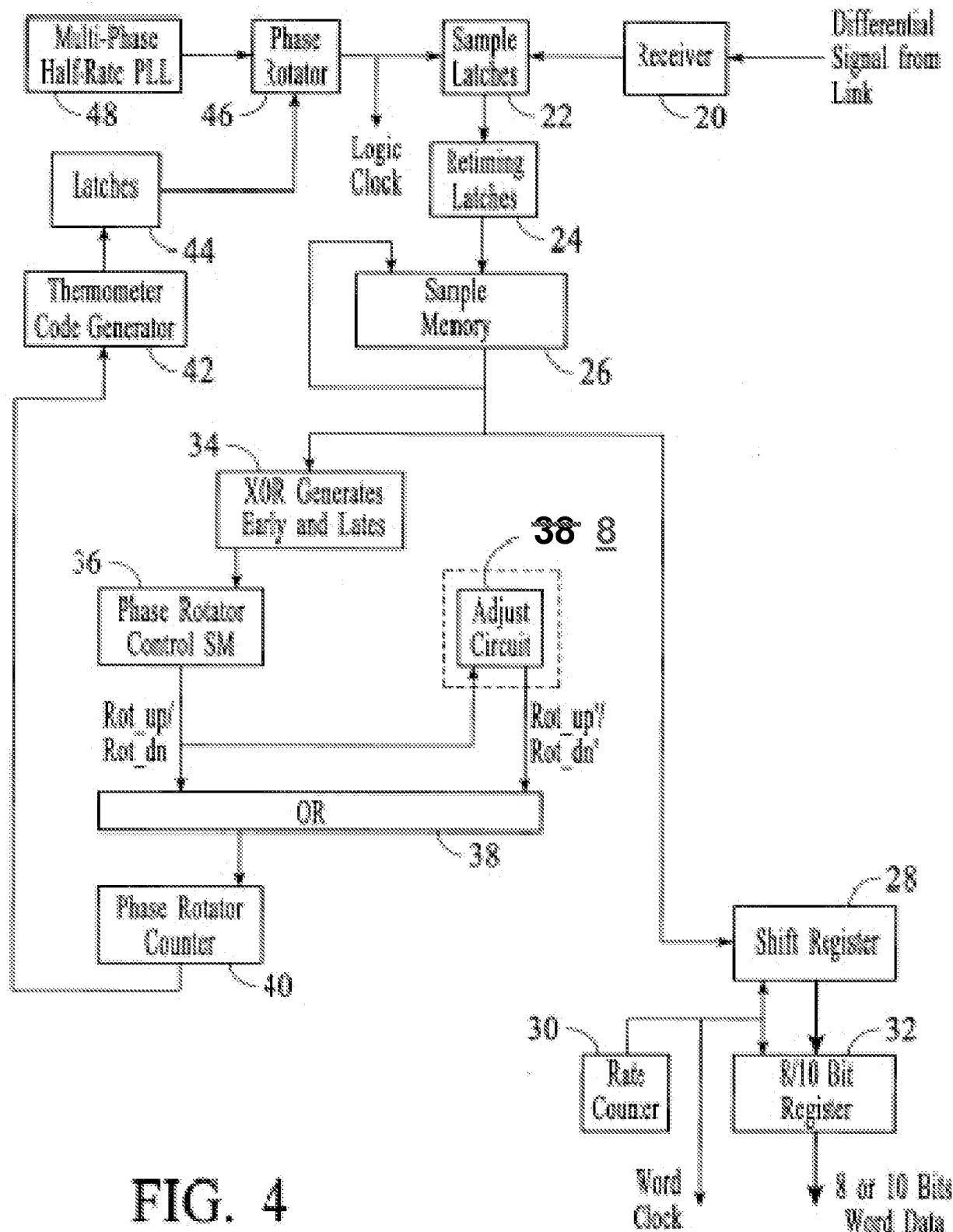


FIG. 4